

DATA SHEET

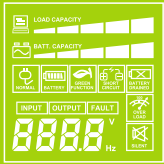
ECO LCD

500/800/1000 VA

WARRANTY

3
YEARS

EXPANDED VISUAL SYSTEM (EVS)



USB COMMUNICATION INTERFACE



IEC 320 OUTPUT OUTLETS



The EVER **ECO LCD** power supply unit protects the equipment connected to it against voltage decays and drops, and eliminates the possibility of damage arising from overvoltage in the mains. Their main purpose of the EVER ECO LCD series UPSs is to protect **computers, video games consoles, telecommunication networks and devices (WiFi), monitors, inkjet printers and fiscal devices.**

FEATURES

- Four IEC 320 outlet sockets with surge protection and emergency power supply (black).
- Four IEC 320 network outlet sockets with surge protection and without emergency power supply (white) (only in ECO 800 LCD and ECO 1000 LCD).
- "Cold start" – option of starting the UPS without connection to the mains.
- Complex LCD panel (EVS).
- Acoustic signalling of particular work conditions.
- Digital battery level meter (DBM).
- Intelligent multifunction button (IMB).
- Microchip control of all parameters.
- Double protection system (DPS).
- Power save mode (GREEN FUNCTION).
- Fast and easy battery replacement (ESB).
- Telecommunication filter (RJ45 port).

PROTECTION

- Overload
- Short circuit
- Surge

SERVICE

- Door-to-door support
- 3-year warranty for the UPS
- 2-year warranty for batteries
- Execution in 14 working days



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TECHNICAL DATA

| PARAMETERS \ TYPE | ECO 500 LCD | ECO 800 LCD | ECO 1000 LCD |
|---|---|--------------------|--------------------|
| Part number | T/ELCDTO-000K50/00 | T/ELCDTO-000K80/00 | T/ELCDTO-001K00/00 |
| Output Power (Apparent / Active) ¹⁾ | 500 VA / 300 W | 800 VA / 500 W | 1000 VA / 600 W |
| GENERAL DATA AND ENVIRONMENTAL | | | |
| Topology | VFD (offline) | | |
| Number of phases (in/out) | 1 / 1 | | |
| Housing Type | Tower | | |
| Operating temperature ²⁾ | 0 ÷ +40 °C | | |
| Storage temperature | 0 ÷ +40 °C | | |
| Relative humidity during operation | 20 ÷ 80 % (non-condensing) | | |
| Relative humidity during storage | 20 ÷ 95 % (non-condensing) | | |
| Operating elevation ³⁾ | < 1000 m | | |
| Protection level | IP20 | | |
| Environment of installation | Office / industrial rooms with low level of pollution | | |
| Cooling | Gravity | | |
| INPUT | | | |
| Nominal input voltage | 230 V AC | | |
| Input voltage range and tolerance | ~190 ÷ 259 V ± 5 % | | |
| Input voltage rated frequency | 50 Hz | | |
| Input voltage frequency range and tolerance | 45 ÷ 55 Hz ± 1 Hz | | |
| Transfer thresholds: Mains – UPS | ~190 ÷ 259 V ± 5 % | | |
| OUTPUT | | | |
| Nominal output voltage | 230 V AC | | |
| Output voltage range and tolerance - normal mode | ~190 ÷ 259 V ± 5 % | | |
| Output voltage range and tolerance - battery mode | ~230 V ± 10 % | | |
| Shape of output voltage (battery mode / normal mode) | Stepped approximation of sine wave / Same as input | | |
| Output voltage rated frequency | 50 Hz | | |
| Output frequency range and tolerance - mains operation mode | Synchronously | | |
| Output frequency range and tolerance - battery mode | 50 Hz ± 1Hz | | |
| Output voltage filtering | LC | | |
| Transfer thresholds: UPS– Mains | ~200 ÷ 249 V ± 5 % | | |
| Transfer time to battery mode | < 6 ms | | |
| Transfer time to normal mode | 0 ms | | |
| BATTERIES AND TYPICAL RUNTIME | | | |
| Internal Batteries | 12 V / 7 Ah VRLA | 12 V / 7 Ah VRLA | 12 V / 9 Ah VRLA |
| Number of internal batteries | 1 | 2 | 2 |
| Maximum overall internal batteries capacity | 7 Ah | 7 Ah | 9 Ah |
| Backup time - internal batteries (100 % / 80 % / 50 % Pmax) | 2 / 5 / 10 min | 4 / 7 / 13 min | 4 / 6 / 14 min |
| Nominal voltage DC circuit | 12 V DC | 24 V DC | |
| Internal batteries maximum charging time - after discharging at 80 % Pmax * | 16 h | 10 h | |

* Charging time to 90% battery capacity, following a prior discharge with a load of 80% Pmax.

Notes:

- 1) For standard operation, the load applied to the output must not exceed 80% of the value in the table. The power margin is necessary to ensure continuous work of the connected devices in the case of instantaneous surges of the load
- 2) For UPS with internal batteries 5 ÷ 35 °C. Constant exposure of the battery module to temperatures of +25°C reduces the battery life.
- 3) The permitted maximum load of the power supply unit decreases with the height above the sea level above the limit specified above.

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TECHNICAL DATA

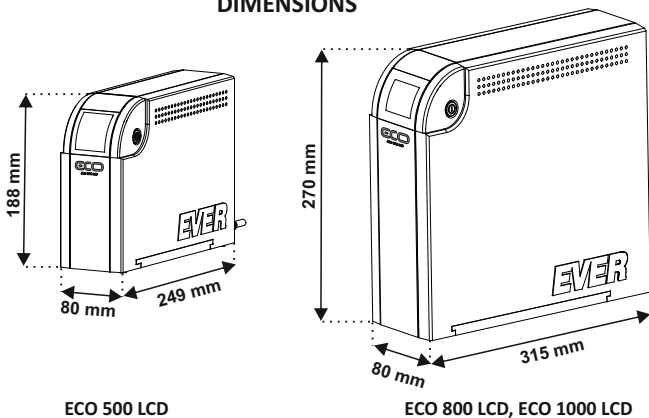
| PARAMETERS \ TYPE | ECO 500 LCD | ECO 800 LCD | ECO 1000 LCD |
|---|--|--|--------------------|
| Part number | T/ELCDTO-000K50/00 | T/ELCDTO-000K80/00 | T/ELCDTO-001K00/00 |
| Output Power (Apparent / Active) ¹⁾ | 500 VA / 300 W | 800 VA / 500 W | 1000 VA / 600 W |
| MECHANICAL SPECIFICATIONS | | | |
| Dimensions (H x W x D) | 188 x 80 x 249 mm | 270 x 80 x 315 mm | |
| Net Weight | 3,2 kg | 6,2 kg | 7,1 kg |
| Gross Weight | 3,7 kg | 7,2 kg | 8,1 kg |
| Transport Dimensions (H x W x D) | 260 x 128 x 310 mm | 355 x 150 x 398 mm | |
| Position in which devices transported | | Vertical | |
| Output cables maximum length | | < 10 m | |
| PROTECT | | | |
| Input over current protection | Short-circuit protection – Circuit breaker 5 A / 250 V AC | Short-circuit protection – Circuit breaker 8A / 250 V AC | |
| Output over current protection | | Surge Protection Electronic short-circuit and overload protection | |
| ACCESSORY AND EXTRA FUNCTIONS | | | |
| Power supply connection | Power cord ended with plug with ground terminal 16A (PN-E-93201:1997) + uni-schuko | | |
| Output connection (number and type of sockets) | 4 x IEC 320 C13 (10 A) battery and surge protected | 4 x IEC 320 C13 (10 A) battery and surge protected 4 x IEC 320 C13 (10 A) surge protected | |
| Signalling | | Acoustic and optical; LCD display | |
| Communications interfaces | | USB | |
| LAN filter | | LAN 10/100 Base-T | |
| Software | | Yes | |
| GREEN FUNCTION activation threshold ⁴⁾ | | ≤ 80 W | |
| CERTIFICATION | | | |
| Declarations | | CE | |
| Standards | | PN-EN 62040-1:2009, PN-EN 62040-2:2008 | |

Note: The manufacturer reserves the right to modify the above parameters without prior notification.

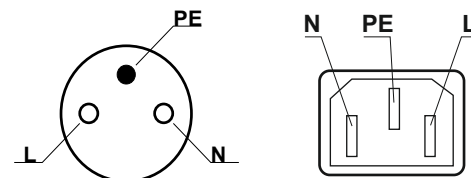
Notes:

4) In battery mode with no load or load less than threshold value, UPS turn off automatically after 5 minutes. It relates to devices which in serial number after E1 have 1311 or less value

DIMENSIONS



LAYOUT OF TERMINALS IN THE POWER AND OUTLET SOCKET

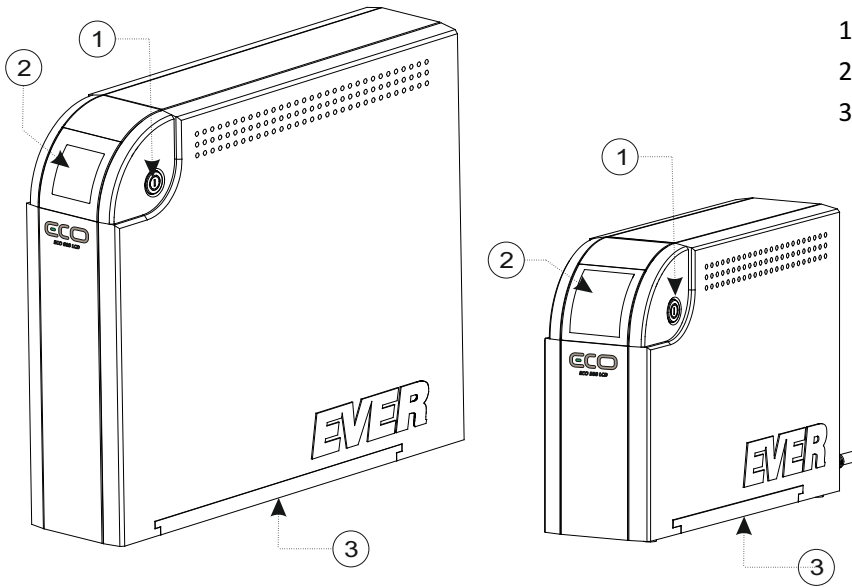


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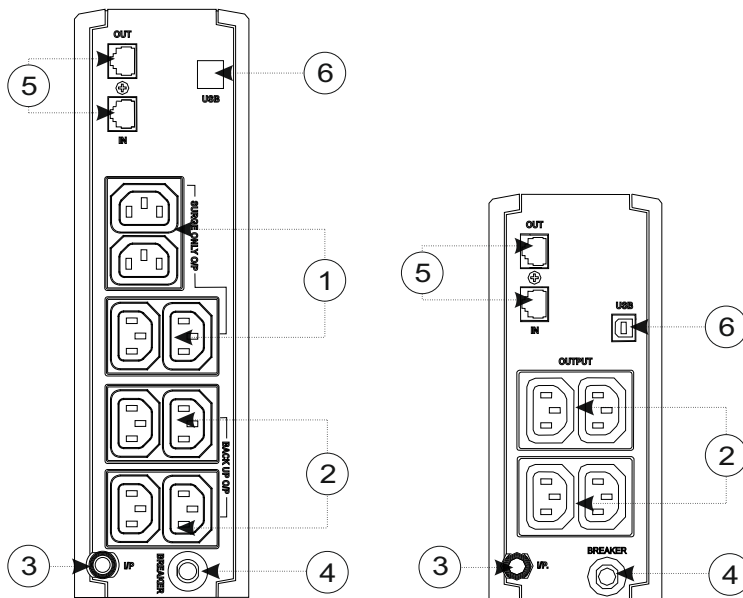


ELEMENTS ON FRONT AND SIDE PANELS



- 1) Intelligent multifunction button (IMB).
- 2) LCD display.
- 3) Battery chamber cover (battery replacement).

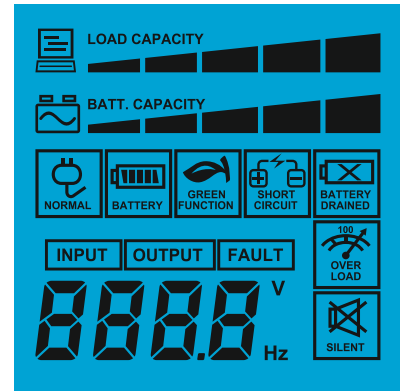
REAR PANEL



- 1) Outlet sockets with surge protection, without emergency support (white).
- 2) Outlet sockets with surge protection, with emergency support (black).
- 3) Power lead.
- 4) Automatic fuse.
- 5) Telecommunication filter (RJ45 port).
- 6) USB port for communication with PC.

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DESCRIPTION OF LCD DISPLAY ICONS

ARRANGEMENT OF ICONS ON LCD DISPLAY

| ICON | DESCRIPTION |
|------|--|
| | Load capacity indication - 5-grade scale (further segments light up along with increasing load). |
| | Battery capacity level indication - 5-grade scale (further segments light up along with increasing battery charge level). |
| | The UPS operates in normal mode (mains power supply). |
| | The UPS operates in buffer mode (no mains power supply or threshold frequency value or effective value of supply voltage are exceeded). |
| | The icon lights up to indicate that power save mode is active (GREEN FUNCTION). |
| | The icon lights up in case of short circuit on the UPS output terminals. |
| | Drained battery - replacement is recommended. In order to replace the battery and to deactivate the icon, please contact EVER Support Centre. |
| | The icon is displayed in case of overload of the UPS. |
| | The icon is displayed when the sound alarm (beeper) is switched off. |
| | The icon is active in case of a fault other than overload or short circuit. |
| | Display of input parameters (input voltage or input frequency). Display of output parameters (output voltage or output frequency). Icons on the display are switched over every 6 seconds. |
| | <p>2300^v or 500^{Hz}</p> <p>Voltage or frequency values (on INPUT or OUTPUT, accordingly) – displayed alternately every 3 seconds.</p> |

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MULTIFUNCTION BUTTON DESCRIPTION

LCD DISPLAY BACKLIGHT


Press the multifunction button shortly once to activate LCD display backlight for 20 seconds.

SWITCHING POWER TO RECEIVERS ON/OFF


- if receivers are not powered (the UPS is switched off - icons  and  are inactive), press and hold the multifunction button to switch powering the receivers on,

- if receivers are powered (the UPS is switched on - icon  or ), is active, press the multifunction button and hold it for 3 seconds to switch the receivers powering off,

SOUND ALARM ON / OFF


- press the multifunction button 3 times within 3 seconds to switch sound alarms off (icon  is displayed),
- press the multifunction button 3 times within 3 seconds again to restore the sound alarms (SILENT icon is off).

POWER SAVE MODE ON / OFF

- press the multifunction 5 times within 3 seconds to switch the power save mode off (GREEN FUNCTION icon is off),
- press the multifunction button 5 times within 3 seconds again to switch the power save mode on (icon  is displayed).


PROTECTION

AGAINST OVERLOAD

In the mains operation mode, at load over 110% of the nominal power, the UPS indicates the overload condition, with rapid, intermittent sound (2 times per second) and displayed icon  (OVERLOAD).

If this condition maintains for a longer time, the UPS will automatically switch off. The greater the overload, the faster the UPS will switch off. In the battery operation mode, overload results in the UPS switching off.

AGAINST SHORT-CIRCUIT

Short-circuit protection on the input side is provided by an automatic circuit breaker and power supply mains protection. Additionally, for the battery operation mode, there is an electronic protection of the UPS output, the operation of which is signalled by active  icon (SHORT-CIRCUIT) and a continuous sound signal.

The power supply from outlet sockets is disconnected and the UPS remains in short-circuit signalling mode. Switch the UPS off with the multifunction button (press and hold it for 3 seconds). Switching the UPS on is possible only after the user's intervention (elimination of short-circuit and switching the UPS on with the multifunction button).

AGAINST OVERVOLTAGE

The UPS features protection against surges on the input, which protects circuits of the receivers and internal circuits of the UPS against excessive surges of high energy voltages, caused by atmospheric phenomena and power supply network interferences.